

## **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and the reasons that follow.

Claims 1-5, 7-10, and 20-31 are now pending in this application. Claim 31 has been amended based on Examiner's suggestion. Claim 29 has been cancelled without prejudice. Claim 21 has been allowed.

### **I. Claim Objection**

Claim 31 was objected to in the Office Action as containing allowable subject matter, but being dependent upon a rejected base claim. The Examiner states that claim 31 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." Applicant thanks the Examiner for acknowledging that claim 31 contains allowable subject matter. Claim 31 has been rewritten in independent form including all of the limitations of the base claim.

### **II. Claim Rejections**

#### **A. 35 U.S.C. § 112**

In the Office Action, claim 29 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite because "[i]t is unclear if claim 29 is an article or method claim." Claim 29 has been cancelled without prejudice.

#### **B. 35 U.S.C. § 103**

In the Office Action, claims 1-5, 7-10, 20, and 22-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 2,096,968 (Johnston) in view of U.S. Patent 5,922,379 (Wang). Applicant respectfully traverses the rejection. MPEP § 2143 states:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

First, there is no suggestion or motivation to combine Johnston with Wang either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Second, there is not a reasonable expectation of success in combining Johnston with Wang. Third, neither Johnston nor Wang alone or in combination disclose, teach, or suggest the claimed invention as recited in claims 1-5, 7-10, 20, 22-28, and 30.

### **Motivation to Combine**

Examiner states no motivation for combining Johnston with Wang presumably because there is no motivation to combine Johnston with Wang for at least three reasons. First, Johnston is inoperable with Wang. Second, combining Johnston with Wang changes the principal of operation of one or the other reference. Third, both Johnston and Wang are complete and functional without the other.

First, Johnston is inoperable with Wang. Johnston and Wang describe disparate, unrelated products. Johnston relates to “shingles for roofing buildings, homes and the like.” (Johnston, Col. 1, lines 1-2). Wang provides “a **biodegradable** protein/starch-based thermoplastic composition. .... The composition is processed ... into packaging material.” (Wang, Abstract, Emphasis added). Neither of these references, nor the knowledge in the art, provides a teaching or a suggestion that the materials utilized in biodegradable packaging materials are suitable for a roofing shingle. Given the disparate uses for these products, it is also highly unlikely that one skilled in the art would have any expectation of successfully making the shingle of Johnston with the biodegradable packaging material of Wang. Biodegradable materials by their very nature break down upon exposure to the elements, and thus, cannot meet the requirements necessary to make a useful roofing shingle. Additionally, the biodegradable packaging material of Wang would not meet any of the rigorous testing standards required of roofing shingles. As a result, the biodegradable protein/starch-based thermoplastic composition of Wang is **inoperable** with the roofing shingle of Johnston. As stated in MPEP § 2143.01, “the proposed modification cannot render the prior art unsatisfactory for its intended purpose.”

Second, combining Johnston with Wang changes the principal of operation of one or the other reference. The shingle disclosed by Johnston is for roofing buildings, homes and the like.

(Johnston, Col. 1, lines 1-2). As a result, Johnston discloses that the shingle is “formed from rag, asbestos, and the like that has been saturated and coated with asphalt and surfaced with mineral granules such as crushed slate, tile, or natural stone.” (Johnston, Col. 2, line 54-Col. 3, line 4). Wang is directed to a biodegradable packaging material formed of protein and starch with natural cellulosic fiber that may “be collected and pasteurized, ground, and palletized for animal feed or fish feed. Because the compositions within the scope of the present invention have a high organic content, they can be added to soil to improve or fertilize the soil.” (Wang, Col. 2, lines 43-47). Use of the biodegradable, possibly edible, composition disclosed by Wang changes the principle of operation of Johnston which is improved shingles for roofing buildings. A biodegradable composition is completely unsuitable for forming the shingle of Johnston that is constantly exposed to weather elements that include wind, rain, hail, snow, sun, etc. Thus, the biodegradable composition of Wang can not be used to form a shingle for roofing buildings. Therefore, use of the biodegradable composition of Wang changes the principle of operation of the shingle for roofing buildings of Johnston.

Conversely, use of the shingle disclosed by Johnston changes the principle of operation of Wang that is to provide a biodegradable, possibly edible, composition. The shingle “formed from rag, asbestos, and the like that has been saturated and coated with asphalt and surfaced with mineral granules such as crushed slate, tile, or natural stone” is not a biodegradable, possibly edible, composition. (Johnston, Col. 2, line 54-Col. 3, line 4). As a result, the biodegradable protein/starch-based thermoplastic composition of Wang changes the principal of operation of the roofing shingle of Johnston, and the roofing shingle of Johnston changes the principal of operation of the biodegradable protein/starch-based thermoplastic composition of Wang. As stated in MPEP § 2143.01, “the proposed modification cannot change the principle of operation of a reference.” As a result, there is no motivation to combine Johnston with Wang.

Third, there is no motivation to combine Johnston with Wang because each described invention is complete and functional without the other. Wang discloses a biodegradable packaging material formed of protein and starch with natural cellulosic fiber that may “be collected and pasteurized, ground, and palletized for animal feed or fish feed. Because the compositions within the scope of the present invention have a high organic content, they can be added to soil to improve or fertilize the soil.” (Wang, Col. 2, lines 43-47). Johnston discloses a shingle “formed

from rag, asbestos, and the like that has been saturated and coated with asphalt and surfaced with mineral granules such as crushed slate, tile, or natural stone.” (Johnston, Col. 2, line 54-Col. 3, line 4). Each described invention is complete and functional without the other. In fact, neither provides any utility whatsoever for the other.

An obviousness rejection cannot properly be maintained where there is no suggestion or motivation to combine the references used in the rejection. As a result, Applicant respectfully requests withdrawal of the rejection of claims 1-5, 7-10, 20, 22-28, and 30.

### **Reasonable Expectation of Success**

There is not a reasonable expectation of success in combining Johnston with Wang. As related above, the biodegradable protein/starch-based thermoplastic composition of Wang is inoperable with the roofing shingle of Johnston. Therefore, there is no reasonable expectation of success in combining Johnston with Wang. An obviousness rejection cannot properly be maintained where there is no reasonable expectation of success in combining the references used in the rejection. As a result, Applicant respectfully requests withdrawal of the rejection of claims 1-5, 7-10, 20, 22-28, and 30.

### **Teach or Suggest All the Claim Limitations**

Claims 1-5, 7-10, 20, 22-27, and 30. Claims 2-5, 7-10, 20, 22-27, and 30 depend from Claim 1.

Claim 1 recites:

- (i) from about 40 percent to 75 percent natural plant fiber; and
- (ii) from about 20 percent to 60 percent of a synthetic polymer.

Neither Johnston nor Wang teach, suggest, or disclose “about 40 to 75 percent natural plant fiber.” In contrast, Johnston fails to disclose the use of natural fiber at all. The only materials mentioned are asbestos, asphalt, slate, tile, or natural stone. (Johnston, Col. 1, lines 4-7; Col. 3, lines 1-4). Wang teaches compositions that contain “5 to 25 wt. % natural cellulosic fiber,”

an amount that is well below “about 40 to 75 percent natural plant fiber.” (Wang, Col. 2, line 59). Analysis of Examples 1-8 of Wang discloses a natural cellulosic fiber usage of between 0% (Wang, Table 1, Samples 1-5) and 20.3% (Wang, Table 2, Sample 4) as measured by part. Tables 8-11 of Wang disclose a natural cellulosic fiber usage of between 10.5% and 25% as measured by weight.

Thus, neither Johnston nor Wang disclose, suggest, or teach “from about 40 percent to 75 percent natural plant fiber.” As a result, Johnston and Wang fail to disclose, suggest, or teach all of the limitations of claim 1. An obviousness rejection cannot be properly maintained where the references used in the rejection do not disclose all of the recited claim elements. As a result, Applicant respectfully requests withdrawal of the rejection of claim 1. Applicant respectfully traverses any arguments posed by Examiner relative to claims 2-5, 7-10, 20, 22-27, and 30 as they are allowable for at least the reasons outlined above relative to claim 1. Therefore, Applicant respectfully requests withdrawal of the rejection of claims 1-5, 7-10, 20, 22-27, and 30.

### **Matter of Choice**

The Office Action states that:

The material of construction has been deemed **a matter of choice**. One of ordinary skill in the art would have appreciated al [sic] of the materials available for use and would have selected any one which fulfilled the intended purpose of his panel. Nevertheless, Wang teaches a thermoplastic material having a combination of a natural plant fiber and synthetic polymer; column 1, lines 40-47.  
....

The particular composition of proportion by weight of each material has been further considered **a matter of choice**; one of ordinary skill in the art would have appreciated the choice and would have selected the proportion according to the intended purpose and function of the device.  
(Page 3, Office Action dated 7/30/2004, Emphasis added)

Applicant respectfully disagrees. First, the proportion by weight of each material is not a matter of choice. Despite the large number of references presented to the Examiner and the Examiner’s own search, no reference has been cited that teaches, suggests, or discloses the claimed proportion by weight of each material. Second, as stated in MPEP § 2144.03, “[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as

being well-known." Applicant requests that the Examiner provide documentary evidence for the statement that the proportion by weight of each material is a matter of choice because the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known.

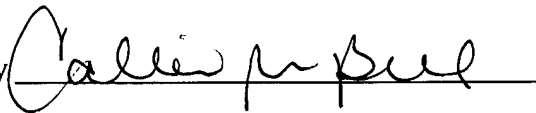
For the foregoing reasons, it is submitted that all of the claims that have been examined in this application are in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2350. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2350. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2350.

Respectfully submitted,

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